

FORM PTO-1595
(Rev. 6-93)
OMB No. 0651-0011 (exp. 4/94)

RECORDATION FORM COVER SHEET

U.S. Department of Commerce
Patent And Trademark Office

PATENTS ONLY

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original document or copy thereof.

1. Name of conveying party(ies):

Name	Date
Fusen Chen	04/22/97
Liang-Yuh Chen	04/21/97
Roderick Craig Mosely	05/11/97
Moshe Eizenberg	05/05/97

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

3. Nature of conveyance:

☒ Assignment ☐ Merger
☐ Security Agreement ☐ Change of Name
☐ Other _____

Execution Date: _____

2. Name and address of receiving party(ies):

Name: Applied Materials, Inc.

Internal Address: _____

Street Address: P. O. Box 450A

City: Santa Clara State: California Zip: 95052

Additional name(s) & address(es) attached? ☒ Yes ☐ No

4. Application number(s) or registration number(s):

If this document is being filed together with a new application, the execution date of the application is: _____

A. Patent Application No.(s)

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Patent Counsel

Internal Address: Applied Materials, Inc.

Street Address: P. O. Box 450A

City: Santa Clara State: California Zip: 95052

6. Total number of applications and patents involved: 1

7. Total fee (37 C.F.R. 3.41)----- \$ 40.00

☐ Enclosed

☐ Authorized to be charged to deposit account

01-1651

8. Deposit account number:

01-1651

DO NOT USE THIS SPACE

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

B. TODD PATTERSON

Name of Person Signing

B. Todd Patterson

Signature

5/14/97

Date

Total number of pages including cover sheet, attachments and document: 3

Mail documents to be recorded with required cover sheet information to:
Commissioner of Patents & Trademarks, Box Assignments
Washington, D.C. 20231

ASSIGNMENT FOR APPLICATION FOR PATENT

WHEREAS:

Names and Addresses
of Inventors:

- | | |
|--------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| 1) Fusen Chen
10390 Stern Avenue
Cupertino, California 95014 | 3) Roderick Craig Mosely
4337 Diavilla Avenue
Pleasanton California 94588 |
| 2) Liang-Yuh Chen
1304 Fairway Entrance Drive
San Jose, California 95131 | 4) Moshe Eizenberg
32 Soroka Street
Haifa, 34759 |

(hereinafter referred to as Assignors), have invented a certain invention entitled:

"RELIABILITY BARRIER INTEGRATION FOR CU APPLICATION"

for which application for Letters Patent in the United States is being executed and filed on even date herewith; and

WHEREAS, Applied Materials, Inc., a corporation of the State of Delaware, having a place of business at 3050 Bowers Avenue, Santa Clara, California 95054 (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said application (hereinafter referred to as Application), and the invention disclosed therein (hereinafter referred to as Invention), and in and to all embodiments of the Invention, heretofore conceived, made or discovered by said Assignors, and in and to any and all patents, inventor's certificates and other forms of protection (hereinafter referred to as Patents) thereon granted in any and all countries and groups of countries.

NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by said Assignors to have been received in full from said Assignee:

1. Said Assignors hereby sell, assign, transfer and convey to Assignee the full and exclusive right, title and interest (a) in and to said Application and said Invention; (b) in and to all rights to apply for patents on said Invention in any and all countries pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all Applications filed and any and all Patents granted on said Invention in any and all countries and groups of countries, including each and every Application filed and each and every Patent granted on any application which is a division, substitution, or continuation of said Application; and (d) in and to each and every reissue or extension of any of said Patents.

2. Said Assignors hereby covenant and agree to cooperate with said Assignee to enable said


Assignee to enjoy to the fullest extent the right, title and interest to said Invention herein conveyed in any and all countries and groups of countries. Such cooperation by said Assignors shall include prompt production of pertinent facts and documents, giving testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filing and prosecuting substitute, divisional, continuing or additional applications covering said Invention; (d) for filing and prosecuting applications for reissuance of any of said Patents; (e) for interference or other priority proceedings involving said Invention; and (f) for legal proceedings involving said Invention and any application therefor and any Patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Assignors in providing such cooperation shall be paid for by said Assignee.

3. The term and covenants of this agreement shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Assignors, their respective heirs, legal representatives and assigns.

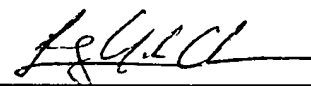
4. Said Assignors hereby warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

IN WITNESS WHEREOF, the said Assignors have executed and delivered this instrument to said Assignee on the dates indicated below.

1) 4/22, 1997


FUSEN CHEN

2) 4/21, 1997


LIANG CHEN

3) 5/11/97, 1997


RODERICK CRAIG MOSELY

4) _____, 1997

MOSHE EIZENBERG

ASSIGNMENT FOR APPLICATION FOR PATENT

WHEREAS:

Names and Addresses
of Inventors:

- | | |
|--------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| 1) Fusen Chen
10390 Stern Avenue
Cupertino, California 95014 | 3) Roderick Craig Mosely
4337 Diavilla Avenue
Pleasanton California 94588 |
| 2) Liang-Yuh Chen
1304 Fairway Entrance Drive
San Jose, California 95131 | 4) Moshe Eizenberg
32 Soroka Street
Haifa, 34759 |

(hereinafter referred to as Assignors), have invented a certain invention entitled:

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for which application for Letters Patent in the United States is being executed and filed on even date herewith; and

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1. Said Assignors hereby sell, assign, transfer and convey to Assignee the full and exclusive right, title and interest (a) in and to said Application and said Invention; (b) in and to all rights to apply for patents on said Invention in any and all countries pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all Applications filed and any and all Patents granted on said Invention in any and all countries and groups of countries, including each and every Application filed and each and every Patent granted on any application which is a division, substitution, or continuation of said Application; and (d) in and to each and every reissue or extension of any of said Patents.

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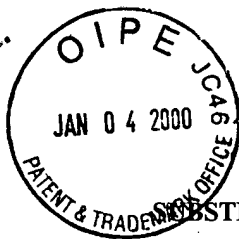
Assignee to enjoy to the fullest extent the right, title and interest to said Invention herein conveyed in any and all countries and groups of countries. Such cooperation by said Assignors shall include prompt production of pertinent facts and documents, giving testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filing and prosecuting substitute, divisional, continuing or additional applications covering said Invention; (d) for filing and prosecuting applications for reissuance of any of said Patents; (e) for interference or other priority proceedings involving said Invention; and (f) for legal proceedings involving said Invention and any application therefor and any Patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Assignors in providing such cooperation shall be paid for by said Assignee.

3. The term and covenants of this agreement shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Assignors, their respective heirs, legal representatives and assigns.

4. Said Assignors hereby warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

IN WITNESS WHEREOF, the said Assignors have executed and delivered this instrument to said Assignee on the dates indicated below.

1)	_____, 1997	_____
		FUSEN CHEN
2)	_____, 1997	_____
		LIANG CHEN
3)	_____, 1997	_____
		RODERICK CRAIG MOSELY
4)	<u>5/5 (May)</u> , 1997	<u>Moshe Eizenberg</u>
		MOSHE EIZENBERG



Atty. Dkt. No. AMAT/1931/MD/COMMON/DV

SUBSTITUTE COMBINED DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that:

This declaration is of the following type:

- ☒ original
- ☐ divisional
- ☐ continuation
- ☐ continuation-in-part

INVENTORSHIP IDENTIFICATION

My residence, post office address and citizenship are as stated below next to my name. I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

RELIABILITY BARRIER INTEGRATION FOR CU APPLICATION

SPECIFICATION IDENTIFICATION

The specification of which:

- ☐ is attached hereto
- ☒ was filed on May 14, 1997, under Serial No. 08/856,116, executed on even date herewith; or
- ☐ Express Mail No.(as Serial No. not yet known)
- and was amended on _____ (if applicable)
- ☐ was described and claimed in PCT International Application No. _____
- filed on _____ and as amended under PCT Article 19 on _____.

ACKNOWLEDGMENT OF REVIEW OF PAPERS AND DUTY OF CANDOR

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose all information I know to be material to patentability in accordance with Title 37, Code of Federal Regulations, §1.56,

and which is material to the examination of this application; namely, information where there is a substantial likelihood that a reasonable Examiner would consider it important in deciding whether to allow the application to issue as a patent, and

- ☐ In compliance with this duty there is attached an Information Disclosure Statement in accordance with 37-CFR §1.98.

PRIORITY CLAIM (35 U.S.C. §119)

I hereby claim foreign priority benefits under Title 35, United States Code, §119, of any provisional or foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below, and have also identified below any provisional or foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed.

☒ No such applications have been filed.

☐ Such applications have been filed as follows:

- A. Prior foreign/PCT application(s) filed within 12 mos. (6 mos. for design) prior to this application, and any priority claims under 35 U.S.C. §119

<u>Country/PCT</u>	<u>Application No</u>	<u>Date Filed</u>	<u>Priority Claimed</u>
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No

- B. All foreign application(s), if any, filed more than 12 mos. (6 mos for design) prior to this U.S. application

Country:
Application No:
Filing date:

- C. U.S. Provisional Application filed within 12 months prior to this application

<u>Serial No.</u>	<u>Filing Date</u>
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PRIORITY CLAIM (35 U.S.C. §120)

I hereby claim the benefit under Title 35, United States Code, §120, of any United States application(s) or PCT international application(s) designating the United States of America that is/are listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose information that is material to the examination of this application (namely, information where there is substantial likelihood that a reasonable Examiner would consider it important in deciding whether to allow the application to issue as a patent) which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application.

☒ No such applications have been filed

☐ Such applications have been filed, as follows:

<u>Serial No.</u>	<u>Filing Date</u>	<u>Status</u>
		<u>Patented</u> <u>Pending</u> <u>Abandoned</u>

POWER OF ATTORNEY

I hereby appoint the following attorneys and/or agents to prosecute this application and transact all business in the Patent and Trademark Office connected therewith:

Donald Verplancken	Registration No. 33,217
Michael B. Einschlag	Registration No. 29,301
Peter J. Sgarbossa	Registration No. 25,610
Lawrence Edelman	Registration No. 25,226
Michael L. Sherrard	Registration No. 28,041
Raymond Kam-On Kwong	Registration No. 37,165
James C. Wilson	Registration No. 35,412
Robert W. Mulcahy	Registration No. 25,436
Raymond R. Moser, Jr.	Registration No. 34,682
B. Todd Patterson	Registration No. 37,906
Keith M. Tackett	Registration No. 32,008

Send correspondence to:

Patent Counsel
Applied Materials, Inc.
P.O. Box 450-A
Santa Clara, CA 95052

Direct telephone calls to:

B. Todd Patterson
THOMASON, MOSER & PATTERSON
(713) 623-4844

DECLARATION

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and, further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Sec. 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patents issued thereon.

Full name of sole or first inventor: **FUSEN CHEN**

Inventor's signature: _____

Date: 10/4/99

Residence: Cupertino, California 95014

Post Office Address: 10390 Stern Avenue
U.S.A.

Country of Citizenship: U.S.A

Full name of second inventor: **LIANG-YUH CHEN**

Inventor's signature: _____

Date: 10/18/99

Residence: San Jose, California 95131

Post Office Address: 1304 Fairway Entrance Drive
U.S.A.

Country of Citizenship: Taiwan

Full name of third inventor: **RODERICK CRAIG MOSELY**

Inventor's signature: _____

Date: 10/4/99

Residence: Pleasanton, California 94588

Post Office Address: 4337 Dia Vila Avenue
U.S.A.

Country of Citizenship: U.S.A.

Full name of **fourth** inventor:

MOSHE EIZENBERG

Inventor's signature: _____ Date: _____

Residence: Haifa, 34759

Post Office Address: 32 Soroka Street

Israel

Country of Citizenship: Israel

(Declaration ends with this page)

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